

# United States Patent and Trademark Office

9

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,773	07/12/2006	Bernd Pfannschmidt	PFANNSCHMIDT-3	7819
20151 HENRY M FF	7590 12/26/2007 IEREISEN, LLC		EXAMINER	
350 FIFTH AV	·		DESAI, NAISHADH N	
SUITE 4714 NEW YORK, NY 10118			ART UNIT	PAPER NUMBER
		2834	2834	
				DELVIENTA
		•	MAIL DATE	DELIVERY MODE
			. 12/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

***************************************	Application No.	Applicant(s)			
·	10/566,773	PFANNSCHMIDT, BERND			
Office Action Summary	Examiner	Art Unit			
	Naishadh N. Desai	2834			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period was realiure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from a cause the application to become AB ANDONEI	I.  lely filed  the mailing date of this communication.  O (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 30 No.	ovember 2007.				
,	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4) ☑ Claim(s) 1-15 is/are pending in the application. 4a) Of the above claim(s) 11-15 is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 1-10 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	n from consideration.				
Application Papers					
9) ☐ The specification is objected to by the Examine 10) ☑ The drawing(s) filed on 31 January 2006 is/are:  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) ☐ The oath or declaration is objected to by the Ex	a) ☐ accepted or b) ☒ objected drawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	nte			

10/566,773 Art Unit: 2834

#### **DETAILED ACTION**

## Election/Restrictions

1. Applicant's election with traverse of Group I (claims 1-10) in the reply filed on 11/30/2007 is acknowledged. Claims 11-14 are withdrawn from further consideration due to belonging to a non-elected group. The traversal is on the ground(s) that the n on elected claims are closely related and applicant wants to preserve unity of invention. This is not found persuasive because the inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The method of cooling (group II) does not have the coolant channel (element 7) of group I and the flow/stream of coolant (group II) is not in the apparatus claims (group I). The requirement is still deemed proper and is therefore made FINAL.

## **Priority**

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

## Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 1/31/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

## **Drawings**

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the flow and direction

10/566,773 Art Unit: 2834

of the coolant as claimed must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

<sup>(</sup>b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10/566,773 Art Unit: 2834

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Balas (US 2003 / 0102730).

5. As per (Currently amended) independent claim 1:

An electric machine with, comprising:

a cylindrical magnet arrangement (abstract and Fig 1B,12); and a cooling device for cooling the magnet arrangement (abstract), characterized in that wherein the cooling device has a coolant channel (7), by means of which for distributing a coolant can be distributed essentially uniformly in the a circumferential direction of the cylindrical magnet arrangement (abstract and Figs 1B and 3).

6. As per (Currently amended) dependent claim 2:

The electric machine as claimed in claim 1, which has further comprising a housing, the coolant channel being part of the housing (Fig 1B,16 and Fig 1D and Fig 1E).

7. As per (Currently amended) dependent claim 3:

The electric machine as claimed in claim 1 [[or 2]], wherein the coolant channel surrounding completely surrounds a circumference of the magnet arrangement (2) completely on the circumference. (Fig 1B,16)

8. As per (Currently amended) dependent claim 4:

The electric machine as claimed in one of the preceding claims claim 1, wherein the coolant channel (7) being is interrupted diagonally opposite a coolant entry (Fig 1B

10/566,773 Art Unit: 2834

shows several airflow paths wherein one such path is located across the inlet of the air and the air goes up perpendicular (arrows for and near element 22). Also Fig 1D and Fig 1E).

9. As per (Currently amended) dependent claim 6:

The electric machine as claimed in one of the preceding claims claim 1, wherein the coolant channel (7) being is arranged upstream of the cylindrical magnet arrangement in the an axial direction (Figs 1B,1D and 1E)

10. As per (Currently amended) dependent claim 7:

The electric machine as claimed in one of the preceding claims claim 1, wherein the coolant channel (7) being is open in one or both axial directions (Fig 1,B), and being capable of being covered with further comprising a bearing shield and/or an annular cover [[(10)]] for covering the coolant channel (Fig 1A and Fig 1D shows the coolant channel to be surrounded by a cover).

11. As per (Currently amended) dependent claim 8:

The electric machine as claimed in one of the preceding claims claim 1, wherein one or more coolant entries (8) being are arranged on the coolant channel radially and/or axially with respect to the cylindrical magnet arrangement (Fig 1B and Fig 1E).

Claim Rejections - 35 USC § 103

10/566,773 Art Unit: 2834

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balas (US 2003/0102730) in view of Potoradi et al (US 6943467).

12. As per (Currently amended) dependent claim 5:

The electric machine as claimed in one of the preceding claims claim 1, wherein a laminated core of the magnet arrangement [[(2)]] has a laminated core forming a wall of the coolant channel.

Balas discloses the device as claimed. Balas does not disclose the rotor or the stator to be laminated. Potoradi et al teaches a laminated stator (Col 3 II 50-53). It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Balas to use the laminated stator of Potoradi et al. The motivation to do so would be that it would make manufacturing easier and simplify assembly of the device.

10/566,773 Art Unit: 2834

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balas (US 2003/0102730) in view of Akers et al (US 3604013).

## 13. As per (Currently amended) dependent claim 9:

The electric machine as claimed in one of the preceding claims claim 1, which has, further comprising a motor terminal junction box, wherein the coolant channel (7) being has a reduced in its dimension in the a radial direction in the a region of the motor terminal junction box.

Balas discloses the device as claimed including showing coolant channels with reduced dimensions in the radial direction in Figs 1A,1B,1D and 1E. Balas does not disclose a motor terminal junction box. Akers et al teaches a motor terminal junction box (Col 2 II 47-61). It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Balas to use the motor terminal junction box of Akers et al. The motivation to do so would be that it would allow for quick access to electrical connections within motor (Col 2 II 51-53 of Akers et al) and for the motor terminal junction box to be installed during assembly of the motor.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balas (US 2003/0102730) in view of Fechner et al (5406152).

# 14. As per (Currently amended) dependent claim 10:

The electric machine as claimed in one of claims 2 to 9 claim 2, wherein the housing (1) consisting of is constructed in the form of a pressure plate structure.

10/566,773 Art Unit: 2834

Balas discloses the device as claimed. Balas does not disclose the housing to be made of a pressure plate. Fechner et al teaches a housing which is formed by pressure plates (Col 4 II 38-40). It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Balas to use the pressure plates in the form of a housing of Fechner et al. The motivation to do so would be that it would reduce the costs of regulating and operating the electric device (Col 2 II 30-33 of Fechner et al).

## Conclusion

- 15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.
- 16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naishadh N. Desai whose telephone number is (571) 270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Naishadh N Desai Patent Examiner

